



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,372	02/24/2004	Christian D. Kasper	98-C-022 (52007-CON)	8948

7590 03/10/2005
Mario J. Donato, Jr.
STMicroelectronics, Inc.
1310 Electronics Drive
Mail Stop 2346
Carrollton, TX 75006

EXAMINER

BOAKYE, ALEXANDER O

ART UNIT	PAPER NUMBER
----------	--------------

2667

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s) ¹	
	10/785,372	KASPER ET AL.	
	Examiner	Art Unit	
	ALEXANDER BOAKYE	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Abstract

1. The abstract of the disclosure is objected to because it contains terms "such as".

Correction is required. See MPEP § 608.01(b).

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 38-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 8 of U.S. Patent No. 6,717,910. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite generating a status error indicator within a FIFO memory of a network device indicative of a frame overflow within the FIFO memory; in response to the status error indicator generating an early congestion interrupt to a host processor indicative that a frame overflow has occurred within the FIFO memory; and generating instructions from the host processor to the FIFO memory

Art Unit: 2667

for discarding the incoming frame that has caused the frame overflow within the FIFO memory with the only difference between the claims of the instant application and the claims of the patent being that the claim of the patent discloses setting early congestion notification bits within an interrupt register of a direct memory access unit while the instant application lacks such limitation. The claim of instant application is broader than the claim of the patent. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using a network device such as the one taught by the patent with the motivation being that it provides capability for controlling congestion within the network.

Claims 45-51 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,717,910. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite generating a status error indicator within a FIFO memory of a network device indicative of a frame overflow within the FIFO memory; in response to the status error indicator generating an early congestion interrupt to a host processor indicative that a frame overflow has occurred within the FIFO memory for discarding the incoming frame that has caused the frame overflow within the FIFO memory; and enhancing the servicing of frames received within the FIFO memory by one of either increasing the number of words of memory burst size or modifying the time-slice of other active processes with the only difference between the claims of the instant application and the claims of the patent being that the claim of the patent discloses direct memory access unit while the instant application lacks such

Art Unit: 2667

limitation. The claim of instant application is broader than the claim of the patent.

Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using a network device such as the one taught by the patent with the motivation being that it provides capability for controlling congestion within the network.

Claims 52-56 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 19 of U.S. Patent No. 6,717,910. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite generating a status error indicator within a FIFO memory of a network device indicative of a frame overflow within the FIFO memory; generating from the FIFO memory an early congestion interrupt to a communications processor in response to the status error indicator; processing the interrupt and setting at least one early congestion notification bit within an interrupt register of a memory; generating an early congestion interrupt from the memory to a host processor indicative that a frame overflow has occurred within the FIFO memory; generating instructions from the host processor to the FIFO memory to discard the incoming frame that caused the frame overflow with the only difference between the claim of the instant application and the claim of the patent being that the claim of the patent discloses enhancing the servicing of frames received within the FIFO memory by one of either increasing the number of words of a direct memory access (DMA) unit burst or modifying the time-slice of other processes while the instant application lacks such limitation. The claim of instant application is also broader than the claim of the

patent. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using a network device such as the one taught by the patent with the motivation being that it provides capability for controlling congestion within the network.

Claims 57-61 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,717,910. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite a FIFO; a memory having an interrupt register and early notification bits that are set in response to a status error indicator corresponding to an overflow within the FIFO memory; and a host processor for receiving an early congestion interrupt from the memory and generating instructions to the FIFO to discard the incoming frame that has caused the frame overflow with the only difference between the claims of the instant application and the claims of the patent being that the claim of the patent discloses means for generating an early congestion interrupt from the direct memory access unit. The claim of instant application is broader than the claim of the patent. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using a network device such as the one taught by the patent with the motivation being that it provides capability for controlling congestion within the network.

Claims 62-66 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 29 of U.S. Patent No. 6,717,910. Although the conflicting claims are not identical, they are not patentably

distinct from each other because both applications recite a FIFO; a memory having an interrupt register and early notification bits that are set in response to a status error indicator corresponding to an overflow within the FIFO memory; a host processor for receiving an early congestion interrupt from the memory and generating instructions to the FIFO to discard the incoming frame that has caused the frame overflow; and means for enhancing the servicing of received frames by one of either increasing the number of words of the memory burst size or modifying the time-slice of other active processes with the only difference between the claims of the instant application and the claims of the patent being that the claim of the patent discloses direct memory access unit while the claim of the instant application lacks such limitation. The claim of instant application is broader than the claim of the patent. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using a network device such as the one taught by the patent with the motivation being that it provides capability for controlling congestion within the network.

Claims 67-68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 34 of U.S. Patent No. 6,717,910. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite means for generating a status error indicator within a FIFO memory indicative of a frame overflow within the FIFO memory; means for reading the status error indicator and, in response, generating an early congestion interrupt to a host processor indicative that a frame overflow has occurred within the FIFO memory and generating instructions from the host processor

Art Unit: 2667

to the FIFO memory to discard an incoming frame causing the overflow; and means for discarding the incoming frame that has caused the frame overflow within the FIFO memory with the only difference between the claims of the instant application and the claims of the patent being that the claim of the patent discloses FIFO memory while the claims of the instant application recites a buffer. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using a network device such as the one taught by the patent with the motivation being that it provides capability for controlling congestion within the network.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The fax number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-4750.

Alexander Boakye

Patent Examiner

AB

2/26/05


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 3/4/05